

**Supplementary Table 1. NHIS questions corresponding to disease status and outcomes**

<b>Variable</b>	<b>NHIS Dataset</b>	<b>Corresponding NHIS Question(s)</b>
Atopic dermatitis	NHIS 2010	During the past 12 months, have you had dermatitis, eczema, or any other red, inflamed skin rash?
Atopic dermatitis	NHIS 2012	During the past 12 months, have you had eczema or any kind of skin allergy?
Allergic rhinitis	NHIS 2010, NHIS 2012	During the past 12 months, have you been told by a doctor or other health professional that you had hay fever?
Asthma	NHIS 2010, NHIS 2012	Have you ever been told by a doctor or other health professional that you had asthma?
Gastrointestinal illness	NHIS 2010	Did you have a stomach or intestinal illness with vomiting or diarrhea that started during those two weeks?
Head or chest cold	NHIS 2010	Did you have a head cold or chest cold that started during those two weeks?
Head or chest cold	NHIS 2012	During the past 12 months, have you had head/chest cold, past 12 months?
Infectious disease	NHIS 2012	During the past 12 months, have you had infectious diseases or problems of the immune system?
Pneumonia/ influenza	NHIS 2012	Have you ever been told by a doctor or other health professional that you had influenza or pneumonia?
Sinusitis	NHIS 2010, NHIS 2012	During the past 12 months, have you been told by a doctor or other health professional that you had sinusitis?
Strep throat/ tonsillitis	NHIS 2012	Have you ever been told by a doctor or other health professional that you had strep throat or tonsillitis?
Chronic obstructive pulmonary disease	NHIS 2010, NHIS 2012	Have you ever been told you have chronic obstructive pulmonary disease?
Diabetes mellitus	NHIS 2010, NHIS 2012	Have you ever been told you have diabetes?
Hypertension	NHIS 2010, NHIS 2012	Have you ever been told you have hypertension?
Malignancy	NHIS 2010, NHIS 2012	Have you ever been told by a doctor that you have cancer?

Abbreviations: NHIS, National Health Interview Survey

**Supplementary Table 2. NHIS 2010 Population Demographics**

<b>Variable</b>	<b>No Atopic dermatitis (n=24208)</b>	<b>Atopic dermatitis (n=2607)</b>	<b>P- value</b>
Age, y, (95% CI)	46.0 (45.7-46.4)	47.5 (46.6-48.4)	0.003
Sex, no. (%)			
Female	13405 (51.1%)	1578 (56.7%)	<0.001
Male	10803 (48.9%)	1029 (43.3%)	
Race/Ethnicity, no. (%)			
White	17874 (80.6%)	2016 (83.7%)	
Black	4171 (12.4%)	347 (9.2%)	
American Indian	191 (0.8%)	22 (0.6%)	<0.001
Asian	1598 (4.9%)	152 (4.3%)	
Other	374 (1.3%)	70 (2.2%)	
Hispanic origin, no. (%)			
Yes	4786 (14.6%)	308 (8.2%)	<0.001
No	19422 (85.4%)	2299 (91.8%)	
Body mass index, no. (95% CI)	29.6 (29.4-29.8)	30.3 (29.7-30.9)	0.05
Smoking status, no. (%)			
Current smoker	4601 (19.4%)	516 (19.1%)	
Former smoker	5005 (21.1%)	692 (26.5%)	<0.001
Never smoker	14602 (59.5%)	1399 (54.4%)	
Diabetes, no. (%)			
Yes	2384 (8.8%)	336 (11.8%)	
No	21512 (90.0%)	2233 (87.0%)	<0.001
Borderline	312 (1.2%)	38 (1.2%)	
Hypertension, no. (%)			
Yes	7690 (29.6%)	1019 (36.0%)	<0.001
No	16518 (70.4%)	1588 (64.0%)	
COPD, no. (%)			
Yes	426 (1.7%)	96 (3.1%)	<0.001
No	23782 (98.3%)	2511 (96.9%)	
History of malignancy, no. (%)			
Yes	1927 (7.8%)	354 (13.9%)	<0.001
No	22281 (92.2%)	2253 (86.1%)	
Asthma, no. (%)			
Yes	2737 (11.6%)	561 (25.0%)	<0.001
No	21471 (88.4%)	2046 (75.0%)	
Allergic rhinitis, no. (%)			
Yes	1595 (6.9%)	397 (15.7%)	<0.001
No	22613 (93.1%)	2210 (84.3%)	

Abbreviations: CI, confidence interval; COPD, chronic obstructive pulmonary disease; NHIS, National Health Interview Survey; No., number; y, year.

Population demographics of NHIS 2010 adult sample. Atopic dermatitis was compared to those without atopic dermatitis. Significant differences were determined using Student's t-test for continuous variables and chi-square test with continuity correction for categorical variables. Those variables with a p-value <0.05 were deemed significant.

**Supplementary Table 3. NHIS 2012 Population Demographics**

<b>Variable</b>	<b>No Atopic dermatitis (n=31493)</b>	<b>Atopic dermatitis (n=2425)</b>	<b>P- value</b>
Age, y, (95% CI)	46.5 (46.2-46.8)	46.8 (45.9-47.7)	0.496
Sex, no. (%)			
Female	17344 (51.1%)	1553 (61.2%)	<0.001
Male	14149 (48.9%)	872 (38.8%)	
Race/Ethnicity, no. (%)			
White	23687 (80.2%)	1847 (81.2%)	
Black	4938 (12.1%)	311 (10.1%)	
American Indian	314 (0.8%)	29 (1.0%)	<0.001
Asian	1997 (5.4%)	148 (5.0%)	
Other	557 (1.6%)	90 (2.8%)	
Hispanic origin, no. (%)			
Yes	5473 (15.2%)	321 (11.6%)	<0.001
No	26020 (84.8%)	2104 (88.4%)	
Body mass index, no. (95% CI)	30.1 (29.9, 30.3)	30.9 (30.1, 31.7)	0.05
Smoking status, no. (%)			
Current smoker	5849 (18.0%)	525 (19.5%)	
Former smoker	6862 (21.8%)	639 (26.1%)	<0.001
Never smoker	18782 (60.2%)	1261 (54.4%)	
Diabetes, no. (%)			
Yes	3141 (8.8%)	304 (11.8%)	
No	27927 (90.1%)	2064 (86.1%)	<0.001
Borderline	425 (1.1%)	57 (2.1%)	
Hypertension, no. (%)			
Yes	10111 (29.1%)	939 (36.5%)	<0.001
No	21382 (70.9%)	1486 (63.5%)	
COPD, no. (%)			
Yes	926 (2.6%)	153 (6.2%)	<0.001
No	30567 (97.4%)	2272 (93.8%)	
History of malignancy, no. (%)			
Yes	2729 (8.2%)	303 (11.5%)	<0.001
No	28764 (91.8%)	2122 (88.5%)	
Asthma, no. (%)			
Yes	3679 (11.6%)	607 (25.0%)	<0.001
No	21471 (88.4%)	1818 (75.0%)	
Allergic rhinitis, no. (%)			
Yes	2177 (7.0%)	348 (14.0%)	<0.001
No	29316 (93.0%)	2077 (86.0%)	

Abbreviations: CI, confidence interval; COPD, chronic obstructive pulmonary disease; NHIS, National Health Interview Survey; No., number; y, year.

Population demographics of NHIS 2012 adult sample. Atopic dermatitis was compared to those without atopic dermatitis. Significant differences were determined using Student's t-test for continuous variables and chi-square test with continuity correction for categorical variables. Those variables with a p-value <0.05 were deemed significant.